## **City of Wichita**





## 2002 Annual Water-Quality Report

This is an annual report on the quality of water delivered by the City of Wichita. It meets the federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of our water, its constituents, and the health risks associated with any contaminants. Safe water is vital to our community. Please read this report carefully and, if you have questions, call the numbers listed below.

# City of Wichita's drinking water surpasses all federal and state drinking-water standards.

We encourage public interest and participation in our community's decisions affecting drinking water. City Council meetings occur on most Tuesdays at 9:00 AM in the City Council Chamber, at City Hall, 455 N. Main. The public is welcome to request time on the agenda for comments about water utility topics.

Consult our Web site at www.wichita.gov and, for further information, see U.S. Environmental Protection Agency (EPA) water information at <a href="https://www.epa.gov/safewater/">www.epa.gov/safewater/</a>

El informe contiene informacion importante sobre la calidad del aqua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.

## **Water Sources**

The City of Wichita is supplied by surface water from Cheney Reservoir, and groundwater from a well field located in the Equus Beds Aquifer. Groundwater is also pumped from local wells around the water treatment plant. These sources are blended at the Wichita Water Treatment Plant just before entering the purification process.

## How to Read This Table

The table shows the results of our water-quality analyses. Every regulated contaminant that we detected in the water, even in the minutest traces, is listed here. The table contains the name of each substance; the highest level allowed by regulation (MCL), the ideal goals for public health, the maximum amount detected (not the average), the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Action Level (AL):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirement that a water system must follow.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant that is allowed in drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water. The data presented in this report is from the most recent testing done in accordance with regulations.

N/A: not applicable ND: not detected at testing **ppb**: parts per billion or micrograms per liter **ppm**: parts per million or milligrams per liter **pCi/l**: Pico curies per liter (a measure of radiation) NTU: nephelometric turbidity units

**City of Wichita Testing Results** 

REGULATED	COLL.								
CONTAMINANTS	DATE	RESULT	RANGE	UNIT	MCL	MCLG	Vio	TYPICAL SOURCE	
Barium	6/2	0.051		ppm	2	2	N	Erosion of natural deposits	
Selenium	6/2	1		ppb	50	50	N	Erosion of natural deposits	
Fluoride	6/2	0.36			4	4	N	Additive which promotes strong teeth	
Nitrate	6/2	0.55		ppm	10	10	N	Erosion of natural deposits	
T. Trihalomethanes	2002	38.81	25.6.27.0	ppm	80	N/A	N	·	
			25.6 -37.8	ppb				Byproduct of drinking water chlorination  Byproduct of drinking water disinfection	
Haloacetic Acids	2002	14.81	11 - 24	ppb	60	N/A	N	•	
Total Organic Halides	1998	130	91 - 130	ppb	N/A	N/A	N	Byproduct of drinking water disinfection	
Total Haloacetonitriles	1998	7.7	3.9 - 7.7	ppb	N/A	N/A	N	Byproduct of drinking water disinfection	
Total Haloketones	1998	1	0 - 1	ppb	N/A	N/A	N	Byproduct of drinking water disinfection	
Chloral Hydrate	1998	2.1	0.5 - 2.1	ppb	N/A	N/A	N	Byproduct of drinking water disinfection	
Cyanogen Chloride	1998	2.1	1.0 - 2.1	ppb	N/A	N/A	N	Byproduct of drinking water disinfection	
Radionuclide-Gross Alpha	10/1	1	N/A	pCi/l	15	0	N	Erosion of natural deposits	
Total Coliform Bacteria	2002	Detected in	n less than		MCL	0	N	Naturally present in the environment	
- Julia Comorni Daotoria	2002			-	_	-		eria in 5% of monthly samples	
Fecal Coliform & E. coli	2002	, ,		0	of collform bac		Human and animal fecal waste		
GUAL CULLUTTI & E. CUIL	2002	U	IN/A		U	U	IN	n iuman anu ammal lecal wasie	
					MRDL	MRDLG			
Disinfectant Residual	2002	1.91	1.85 - 1.97	ppm	4	4	N	Added to drinking water for disinfection	
					TT*		*	TT= % of samples meeting 0.3 standard = 100%	
•	2002 loudiness	0.3 of the wate	N/A r. We Monitor	NTU it because	TT* 5	N/A d indicator	N	TT= % of samples meeting 0.3 standard = 100% Soil runoff e effectiveness of our filtration system.	
Turbidity is a measure of the cl	loudiness	of the wate	r. We Monitor	it because	5 e it is a good	d indicato	N of the	e effectiveness of our filtration system.	
Turbidity is a measure of the cl				it because	5 e it is a goo		N of the	Soil runoff	
Turbidity is a measure of the control of the contro	loudiness	of the wate	r. We Monitor	it because	5 e it is a good	d indicator	N of the	Soil runoff e effectiveness of our filtration system.	
Turbidity is a measure of the control of the contro	loudiness 2002	of the wate	r. We Monitor	Remov	5 it is a good	d indicator	N of the	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE	
Turbidity is a measure of the control of the contro	2002  DATE	1.31	r. We Monitor	Remov	5 it is a good  TT al ratio>1  AL Site  AL=15	N/A	N r of the	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system	
Turbidity is a measure of the classical Organic Carbon (TOC)  90th PERCENTILE  Lead	2002  DATE 2002 2002	1.31	0.79 - 2.07	Remov ppb ppm	5 rit is a good TT al ratio>1 AL Site AL=15 AL=1.3	N/A es over 0	N r of the	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE	
Furbidity is a measure of the classic Carbon (TOC)  Ooth PERCENTILE  Lead  Copper  * KDHE sent failure to monitor	2002  DATE 2002 2002 violation t	1.31  * * * o city: Dec	0.79 - 2.07	Remov ppb ppm 2. Public e	5 rit is a good TT al ratio>1 AL Site AL=15 AL=1.3	N/A es over 0	N of the	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system	
Turbidity is a measure of the control of the contro	2002  DATE 2002 2002 violation t	1.31  * * o city: Dec	0.79 - 2.07	Remov  ppb ppm 2. Public e	5 e it is a good  TT al ratio>1  AL Site AL=15 AL=1.3 education re	N/A es over 0	N r of the	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system	
Turbidity is a measure of the classic content of the classic carbon (TOC)  90th PERCENTILE  Lead  Copper  * KDHE sent failure to monitor  SECONDARY CONT.  Aluminum	DATE 2002 2002 2002 violation t DATE 6/3	1.31  * * o city: Dec	0.79 - 2.07	Remov ppb ppm 2. Public e	5 it is a good TT all ratio>1 AL Site AL=1.3 aducation re	N/A es over 0	N of the N Vio Y Y	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits	
Turbidity is a measure of the control of the contro	2002  DATE 2002 2002 violation t  DATE 6/3 6/3	1.31  * * o city: Dec  RESULT  9 24.39	0.79 - 2.07	Remov  ppb ppm 2. Public e	5 it is a good  TT al ratio>1  AL Site AL=15 AL=1.3 ducation re  50-200 75-200	N/A es over 0	N of the N Vio Y Vio N N	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits  Erosion of natural deposits	
Turbidity is a measure of the control of the contro	DATE 2002 2002 2002 violation t DATE 6/3	1.31  * * o city: Dec	0.79 - 2.07	Remov  ppb ppm 2. Public e	5 it is a good TT all ratio>1 AL Site AL=1.3 aducation re	N/A es over 0	N of the N Vio Y Y	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits	
Turbidity is a measure of the classical Organic Carbon (TOC)  90th PERCENTILE  Lead  Copper  * KDHE sent failure to monitor  SECONDARY CONT.  Aluminum  Calcium  Magnesium	2002  DATE 2002 2002 violation t  DATE 6/3 6/3	1.31  * * o city: Dec  RESULT  9 24.39	0.79 - 2.07	Remov  ppb ppm 2. Public e  UNIT ppb ppm	5 it is a good  TT al ratio>1  AL Site AL=15 AL=1.3 ducation re  50-200 75-200	N/A es over 0	N of the N Vio Y Vio N N	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits  Erosion of natural deposits	
Turbidity is a measure of the classification (TOC)  90th PERCENTILE  Lead  Copper * KDHE sent failure to monitor  SECONDARY CONT.  Aluminum  Calcium  Magnesium  Sodium	2002  DATE 2002 2002 violation t  DATE 6/3 6/3 6/3	1.31  * * o city: Dec  RESULT 9 24.39 14.25	0.79 - 2.07	Remov  ppb ppm 2. Public e  UNIT ppb ppm ppm	5 e it is a good  TT al ratio>1  AL Site AL=15 AL=1.3 education re  50-200 75-200 50-150	N/A es over 0	N of the N Vio Y Y Vio N N N	Soil runoff De effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits  Erosion of natural deposits  Erosion of natural deposits	
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Turbidity is a measure of the classister of the	2002  DATE 2002 2002 violation t  6/3 6/3 6/3 6/3 6/3 6/3	* * * o city: Dec  RESULT 9 24.39 14.25 94.34 4.4	0.79 - 2.07	ppb ppm 2. Public e  UNIT ppb ppm ppm ppm ppm	5 it is a good  TT al ratio>1  AL Site AL=15 AL=1.3 ducation re  50-200 75-200 50-150 100	N/A es over 0	N of the N Vio	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits	
Turbidity is a measure of the classification (TOC)  Poth PERCENTILE Lead Copper KDHE sent failure to monitor SECONDARY CONT. Aluminum Calcium Magnesium Sodium Potassium Chloride Sulfate	2002  DATE 2002  violation t  6/3 6/3 6/3 6/3 6/3 6/3	* * o city: Dec  RESULT 9 24.39 14.25 94.34 4.4 124.22	0.79 - 2.07	Remov  ppb ppm 2. Public e  UNIT ppb ppm ppm ppm ppm ppm	5 it is a good  TT al ratio>1  AL Site AL=15 AL=1.3 ducation re  50-200 75-200 50-150 100 100 250	N/A es over 0	N of the N Vio	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits	
Turbidity is a measure of the classical Organic Carbon (TOC)  90th PERCENTILE  Lead  Copper * KDHE sent failure to monitor  SECONDARY CONT.  Aluminum  Calcium  Magnesium  Sodium  Potassium  Chloride  Sulfate  Total Hardness	2002  DATE 2002  violation t  DATE 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3	* * * o city: Dec  RESULT 9 24.39 14.25 94.34 4.4 124.22 66	0.79 - 2.07	Remov  ppb ppm  Public e  UNIT ppb ppm ppm ppm ppm ppm ppm ppm	5 e it is a good  TT al ratio>1  AL Site AL=15 AL=1.3 education re  50-200 75-200 50-150 100 100 250 250 400	N/A es over 0	N of the N Vio	Soil runoff a effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits	
Turbidity is a measure of the classical Organic Carbon (TOC)  90th PERCENTILE  Lead  Copper * KDHE sent failure to monitor  SECONDARY CONT.  Aluminum  Calcium  Magnesium  Sodium  Potassium  Chloride  Sulfate  Total Hardness  Alkalinity as CaCO <sub>3</sub>	2002  DATE 2002 2002 violation t  6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/	* * * o city: Dec  RESULT 9 24.39 14.25 94.34 4.4 124.22 66 119.49 89.22	0.79 - 2.07	Remov  ppb ppm  Public e  UNIT ppb ppm ppm ppm ppm ppm ppm ppm ppm ppm	5 it is a good  TT al ratio>1  AL Site AL=15 AL=1.3 ducation re  50-200 75-200 100 100 250 250 400 60-300	N/A es over 0	N of the Vio	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits	
Turbidity is a measure of the classical Organic Carbon (TOC)  90th PERCENTILE  Lead Copper * KDHE sent failure to monitor  SECONDARY CONT.  Aluminum Calcium Magnesium Sodium Potassium Chloride Sulfate Total Hardness Alkalinity as CaCO <sub>3</sub> pH	2002  DATE 2002  violation t  6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/	* * * * * o city: Dec  RESULT 9 24.39 14.25 94.34 4.4 124.22 66 119.49 89.22 7.65	0.79 - 2.07	Remov  ppb ppm  Public e  UNIT ppb ppm ppm ppm ppm ppm ppm ppm ppm ppm	5 it is a good TT all ratio>1  AL Site AL=15  AL=1.3 aducation residuation res	N/A es over 0	N Of the Vio N N N N N N N N N N N N N N N N N N N	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits	
Total Organic Carbon (TOC)  90th PERCENTILE  Lead  Copper * KDHE sent failure to monitor  SECONDARY CONT.  Aluminum  Calcium  Magnesium  Sodium  Potassium  Chloride  Sulfate  Total Hardness  Alkalinity as CaCO <sub>3</sub> pH  Specific Conductivity	DATE 2002 violation t  6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/	* * * o city: Dec  RESULT 9 24.39 14.25 94.34 4.4 124.22 66 119.49 89.22 7.65 718.5	0.79 - 2.07	Ppb ppm ppm ppm ppm ppm ppm ppm ppm ppm p	5 it is a good TT all ratio>1  AL Site AL=15  AL=1.3  AL=1.3  AL=1.3  AL=1.0  50-200  75-200  50-150  100  100  250  250  400  60-300  6.5-8.5  1500	N/A es over 0	N Of the Vio N Vio N N N N N N N N N N N N N N N N N N N	Soil runoff a effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits  Erosion of natural deposits	
Turbidity is a measure of the classical Organic Carbon (TOC)  90th PERCENTILE  Lead Copper * KDHE sent failure to monitor  SECONDARY CONT.  Aluminum Calcium Magnesium Sodium Potassium Chloride Sulfate Total Hardness Alkalinity as CaCO <sub>3</sub> pH	2002  DATE 2002  violation t  6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/3 6/	* * * * * o city: Dec  RESULT 9 24.39 14.25 94.34 4.4 124.22 66 119.49 89.22 7.65	0.79 - 2.07	Remov  ppb ppm  Public e  UNIT ppb ppm ppm ppm ppm ppm ppm ppm ppm ppm	5 it is a good TT all ratio>1  AL Site AL=15  AL=1.3 aducation residuation res	N/A es over 0	N Of the Vio N N N N N N N N N N N N N N N N N N N	Soil runoff e effectiveness of our filtration system.  Naturally present in the environment  TYPICAL SOURCE  Corrosion of household plumbing system  Corrosion of household plumbing system  TYPICAL SOURCE  Erosion of natural deposits	

Corrosivity	6/3	0.615	LI	0-+1.0	Ν	Erosion of natural deposits
Nickel	6/3	0.001	ppm	N/A	N	Erosion of natural deposits

## **Unregulated Contaminants**

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicated the occasional presence of these organisms in our source water, but not in the treated water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

The U.S. Environmental Protection Agency's Unregulated Contaminant Monitoring Rule required the City of Wichita public water supply to monitor for the unregulated contaminants listed in rule. The required monitoring has been completed and the results are available by calling 316-265-1300.

## Required Additional Health Information

To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- (D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.
- (E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800-426-4791).

#### Search for Excellence

Our utility has joined the Partnership for Safe Water, a national initiative to help achieve operational excellence in water treatment. The partnership was developed through cooperation among the U.S. Environmental Protection Agency (EPA), states, and water supply associations to provide better protection for consumers from microbial contaminants that can cause intestinal illness.

National Primary Drinking Water Regulation Compliance

For more information, call the City of Wichita at 316-265-1300.

Water quality data for community water systems throughout the United States is available at <a href="www.waterdata.com">www.waterdata.com</a>. Learn more about the City of Wichita water system at <a href="www.wichita.gov">www.wichita.gov</a>

#### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Our water system did not report lead and copper test data before the required deadline during the past year. Even though this was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During June 1, 2002 to September 30, 2002 we did not monitor or test for lead/copper, but the results of other routine and required testing of our drinking water indicates that the City's water remains safe.

#### What should I do?

There is nothing you need to do at this time. The table below lists the contaminants we did not properly test for during the last year, how often we are supposed to sample for lead/copper at customer taps and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were taken.

Contaminant	Required sampling frequency	When all samples should have been taken	When samples were taken
Lead and Copper	50 samples from customer taps every three years	June 1–Sept 30 2002	Nov 19–Dec 27 2002

## What happened? What is being done?

Although the City of Wichita missed an opportunity to collect samples during a warm weather-monitoring period, the required numbers of samples were collected and analyzed for lead and copper in November and December. The results of this testing were lead/copper values well below the levels of concern referred to as Action Levels. The City will return to compliance by collecting another set of samples during the required warm weather period of June 1 through September 30, 2003.

For more information, please contact your customer service representative at 316-265-1300.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the City of Wichita State Water System ID#: Y3500

Date distributed: May 2003